BRAVINSKIY, V. G.

Chem ab   v48
1 - 25- 54
General + Physical
Chemistry

Microhardness of a zinc monocrystal. D. M. Chig-vinadze and V. G. Bravinskii (Inst. Phys., Acad. Sci. Georgian S.S.R., Tiflis). Soobshcheniya Akad. Nauk Gruzin. S.S.R. 13, No. 3, 145-52(1952). —The expts. were made with 2, 3, 4, 5, 7, 9, 10, 20, 50, and 100-g. loads on Zn samples 99.95% pure. On the base plane (obtained by split-ting the crystal or chemically by etching in a 25% HNO₃ soln.) the hardness is independent of the load in the split crystal; the chemically polished samples show that the hardness of the non-work-hardened sample is independent of the load, but the work-hardened sample shows 8-10 kg./sq. mm. increase to a depth of 9 μ. On prismatic surfaces of the first kind the hardness increases in the surface layers to a depth of 2.1 μ in work-hardened samples and is inde-pendent of the load in samples not hardened. The same behavior is observed on natural planes. Thus the micro-hardness of Zn is independent of the load for nondeformed samples beyond a depth of 1 μ. The hardness is independent of the face.   S. Pakswer

BRAVINSKIY, V.G.

RUKMAN, G.I.; KORNILOV, A.P.; KHRYUKIN, V.S.; BRAVINSKIY, V.G.

Radio interference (phase metering) circuits used in measuring engineering. Izm. tekh. no.4:77-79 Jl-Ag '57.   (MLRA 10:8)
(Interferometer)

BRAVINSKIY V.G.

AUTHORS: Bravinskiy,V.G., Lyakhova, Ye.P.;   32-8-23/61

TITLE: Determination of the Coefficients of Thermal Expansion of Materials With Regard to Welding. (Opredeleniye koeffitsyentov termicheskogo rasshireniya materialov dlya spayev)

PERIODICAL: Zavodskaya Laboratoriya, 1957, Vol. 23, Nr 8, pp.940-941 (USSR)

ABSTRACT: The paper describes the differential curves of thermal expansion which determine the differences of the absolute expansions of various materials on welding at any temperature of the interval. The Leitz universal differential dilatometer was used for the experiments. The course of the experiments: The samples of materials destined for welding were put into quartz tubes. A sample whose thermal expansion is close to normal linear conditions was taken as reference object. The obtained dilatograms permitted to determine the divergence of the curves of thermal expansion of two confronted materials at a temperature interval from room temperature to 500°C. The speed of heating was controlled by a thermoregulator. Bars of 50 mm length and 3-3,5 mm ∅ served as samples. After every 100C interval a light record was made on the curve. Only the heat curve was recorded. As an example the authors give the measurement of the thermal expansion coefficients of steatite- FeNi and lead glass-chromium steel. The calculation was made according to the formula:

$$\Delta\alpha = \frac{\Delta l/l}{l_0(T_K - T_H)}$$, where $\Delta\alpha$- is the difference of the thermal ex-

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32-8-23/61

Determination of the Coefficients of Thermal Expansion of Materials
With Regard to Welding.

   pansion coefficient of the samples; Δl- the difference of the ab-
solute expansions, the degree of increase - 586 (according to the
axis OY); l_0 - the initial length of the sample (50 mm); (T_K-T_H)-
the final and initial temperatures. On the dilatogram the thermal
relationship of the thermal expansion divergence of welding mater-
ials in the entire temperature interval is directly obtained. In
that connection the possibility exists to calculate the difference
between two coefficients, and to determine one coefficient when
the other one is known. There is 1 illustration.

AVAILABLE: Library of Congress.

Card 2/2

BRAVINSKIY, V.G.; BRAVINSKAYA, Ye.G.

Rapid method of controlling the thermal expansion of materials.
Zav.lab. no.11:1336-1338 '59.
(MIRA 13:4)

(Materials--Testing)   (Heat (Expansion))

BRAVINSKIY, V.G.; GRIGOR'YEV, K.K.

Device attached to the extensometer for the determination of Young's
modulus. Zav.lab. no.11:1382-1384 '59.   (MIRA 13:4)
          (Elasticity) (Testing machines)

/5. 2200

68810

AUTHOR: Bravinskiy, V. G.   S/020/60/131/01/022/060
                                                      B013/B007

TITLE: The Mechanical Strength of Ceramic
                 Materials

PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol 131, Nr 1, pp 82 - 84
                 (USSR)

ABSTRACT: .A short report is first given on the conclusions drawn from nu-
                 merous papers on solids. All ceramical materials consisting of
                 oxides may be schematically subdivided into two groups accord-
                 ing to their structure: The materials of the first group con-
                 sist of small crystals of difficultly meltable oxides or of their
                 compounds, which are cemented together by thin intermediate
                 layers of glass. In the case of the materials of the second
                 group all the small crystals are intergrown with one another,
                 and only the cavities between them are filled with glass. Both
                 groups of materials have a certain inner porosity. For the pur-
                 pose of comparing the materials of both groups, the author in-
                 vestigated an "aluminum-silicate-ceramic" (group I) and an
                 "aluminum-oxide-ceramic" (group II), the crystal phase of which
                 consists essentially of α-corundum. The porosity of both mate-
Card 1/4   rials is (judging from the absorption of water) nearly equal

The Mechanical Strength of Ceramic Materials

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B013/B007

to zero. The author investigated the bending strength of cylindrical samples having a diameter of from 4 to 14 cm, which had been produced by hot casting under pressure. Figure 1 shows the results obtained by an investigation of about 150 samples of an aluminum-silicate- and an aluminum-oxide-ceramic. In both cases a distribution of the values of mechanical strength is obtained. The absolute values of bending strength, which do not essentially differ from breaking strength, are below the theoretical values of the critical stresses for glass and aluminum oxide, and are of a similar order of magnitude as the strength of thin glass threads. The sample did not always begin to break in the center in which the maximum tensile stresses act. Figure 3 contains data concerning the strength of samples of different diameters, which are made from aluminum-silicate- and aluminum-oxide-ceramics. If the sample surface decreases, its strength increases, and this effect is particularly marked even in the case of large dimensions (4 to 14 mm). Proceeding from the results obtained by these experiments, and also by the analysis of the shape of the site of fracture of the samples, the following conclusions may be drawn: The technical strength of ceramic materials is

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The Mechanical Strength of Ceramic Materials   S/020/60/131/01/022/060
                                                  B013/B007

essentially determined by the defects (inhomogeneities) on the
surface of the sample. Also the inner porosity of ceramic ma-
terials must be taken into account. Figure 4 shows the dependence
of the time elapsing until breakage occurs on the breaking load
for both types of ceramics. This dependence has the same charac-
ter as that in glass samples. The straight-lined range is here
described by the well-known formula $\lg \tau = a - \gamma \cdot \lg P$. However, in
this case the coefficient of static fatigue is considerably lower
than in glass. According to these experiments, ceramic materials
show a distinctly marked static fatigue. From the entire material
discussed here the following conclusions may, among other things,
be drawn: Breaking of ceramic materials under the effect of ap-
plied stress begins at the inhomogeneities on the surfaces of
the samples, and also the samples themselves may be concerned.
Brittle rupture of ceramic materials must be characterized by
technical strength and static fatigue. The author thanks
V. I. Likhtman and V. P. Ivanov for their interest in the present

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The Mechanical Strength of Ceramic Materials

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B013/B007

paper and for discussions. There are 4 figures and 13 ref-
erences, 9 of which are Soviet.

PRESENTED: June 5, 1959, by P. A. Rebinder, Academician

SUBMITTED: May 20, 1959

Card 4/4

18.8200

27711
S/120/61/000/003/023/041
E124/E584

AUTHORS: Bravinskiy, V.G., Osipov, M.V. and Kozlov, A.F.

TITLE: Determination of the ultimate strength and Young's
               modulus of small specimens at high temperatures

PERIODICAL: Pribory i tekhnika eksperimenta, 1961, No.3,
               pp.139-142

TEXT: The instrument described can be used to determine the
ultimate strength and Young's modulus of brittle substances
between normal ambient temperature and 1000°C by the method of
bending thin sheets.   The method was developed because of the
need to test small specimens of new materials which are not
available in large quantities and also to enable tests to be made
at high temperature.   The specimens are discs of from 15 to 40 mm
diameter and from 0.5 to 2 mm thick.   The specimen, which is sup-
ported around the edge by a ceramic support, is contained in a
small electric furnace with heaters above and below the disc and
with a central aperture for the application of load to the disc
through a cylindrical ceramic tip on the end of a steel extenso-
meter rod, the displacement of which is measured by a microscope.
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Determination of the ultimate strength ... S/120/61/000/003/023/041
                                           27711
                                           E124/E584

Load is applied to the top of the extensometer rod by an electro-
magnet of 4 200 amp turns operating through a system of levers
with a ratio of 1:15, and the maximum pressure that can be applied
to the specimen is about 50 kg.   Direct current is supplied to the
magnet from a rectifier, the output of which can be varied smoothly
by means of an electric motor operating through a reduction gear.
The initial load on the specimen is about 100 g.   The furnace can
cover the temperature range up to 1000°C and because there are
heaters both above and below the specimen, the temperature gradient
in the specimen is reduced to a minimum, in the radial direction it
is up to 2% of the test temperature and across the thickness less
than 0.5%.   Forced ventilation by compressed air is applied to the
upper part of the indentor and to the extensometer rod to which it
is fixed.   Young's modulus and the ultimate strength are readily
calculated from the deflection at the centre of the disc with a
given applied load and from the failure load.   The error in the
determination of Young's modulus and ultimate strength of brittle
substances did not exceed 8%.   The apparatus was used to test
various substances and results are quoted for single-crystal
Card 2/3

Determination of the ultimate strength ... S/120/61/000/003/023/041
27711
E124/E584

sapphire, technical cold rolled nickel and glass grade $3C-5$ (ZS-5), the results are in good agreement with published data. Agreement is also good between results obtained on this apparatus for aluminium silicate and aluminium oxide ceramics and results determined by the dynamic (sonic) method. However, the results obtained for aluminium oxide ceramic remain relatively constant a little above 30 kg/mm^2 up to a temperature of 800°C and then fall quite rapidly to about 5 kg/mm^2 at 1000°C, whereas previously published results have indicated a gradual but slight diminution. The results published here are in agreement with recent work of the United States National Bureau of Standards. The loss of strength probably results from cracking in the corundum grains. There are 6 figures and 12 references: 10 Soviet and 2 non-Soviet. The English-language reference reads as follows: Ref.11. J. Nactman, L. Maxwell, Ceramics, 1960, 11, No.131, 18.

SUBMITTED: July 21, 1960

Card 3/3

21561

15.2000   14541, 1136, 1155   S/020/61/137/003/010/030
B104/B214

AUTHORS: Bravinskiy, V. G. and Osipov, M. V.

TITLE: Effect of the scale factor on the time dependence of the strength of ceramic materials

PERIODICAL: Doklady Akademii nauk SSSR, v. 137, no. 3, 1961, 557-559

TEXT: Papers on the scale effect are discussed in the introduction and it is shown that in these papers the lower strength of these materials was considered to be the consequence of their characteristic inhomogeneities. The scale effect appears in these materials particularly strongly and in this a major role is to be assigned to the surface inhomogeneities. Aluminum-silicate and aluminum-oxide ceramics are studied which possess, respectively, glass like and crystalline structure. The specimens were formed as cylinders and after the solidification absorbed practically no water. The strength was studied by bending experiments. Fig. 1 shows graphically the dependence of bending strength as a function of the diameter of the specimen. As is seen from Fig. 1b, the strength of magnesium

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Effect of the scale factor...

21561

S/020/61/137/003/010/030
B104/B214

silicate ceramic with a water-absorbing power of about 50% does not depend on the diameter of the specimen. Fig. 2 shows graphically the effect of the test length of the specimen on the strength. The experiments showed that most ruptures of the specimen appeared within the region 1 (Fig. 2). This result is easy to understand from the fact that on reduction of 1 the dangerous defects become less. From the data on longevity (Fig. 3) the conclusion is drawn that the coefficient γ in the relation $\tau = A\exp(-\gamma P/kT)$ of S. N. Zhurkov depends on the degree of defectivity. There are 3 figures and 12 references: 11 Soviet-bloc and 1 non-Soviet-bloc.

PRESENTED: September 28, 1960, by P. A. Rebinder, Academician

SUBMITTED: September 14, 1960

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Effect of the scale factor...   S/020/61/137/003/010/030
                                                  B104/B214

Fig. 1: Dependence of the bending
strength on the diameter d of the specimen.
Legend: 1a) The line 1 was obtained on
aluminum silicate ceramics and 2 on aluminum
oxide ceramics. Lines 3 (aluminum silicate)
and 4 (aluminum oxide) were taken on polished
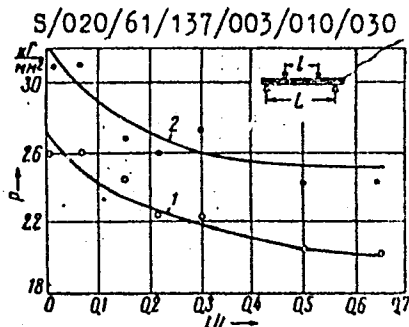specimens of 10-mm size. 1b) Porous magnesium
oxide ceramic.
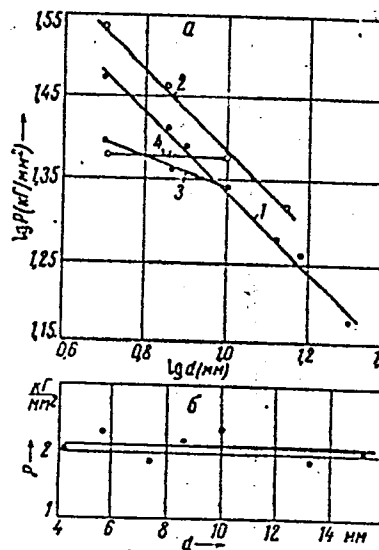
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21561

Effect of the scale factor...

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Legend to Fig. 2: Dependence of the
bending strength of the specimen on the
relative test length (see Fig.) for
aluminum silicate (1) and aluminum oxide
(2) ceramics.

Legend to Fig. 3: Longevity of the
ceramic materials as function of the
stress for specimens of different
diameters. 1) d = 13 mm, 2) d = 10 mm,
3) d = 7.5 mm, 4) d = 5 mm.
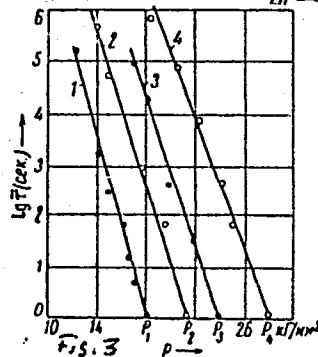
Card 4/4

L 19958-63   EPF(n)-2/EWP(q)/EWT(m)/BDS/EWP(B)/T-2/ES(w)-2--AFFTC/ASD/
SSD--Pu-4/Pab-4--JD/WH
ACCESSION NR: AP3007327   S/0048/63/027/009/1219/1223

AUTHOR: Bravinskiy, V.G.; B Reshetnikov, A.M.

TITLE: Investigation of the process of development of microcracks in ceramics
/Report, Fourth All-Union Conference on Electron Microscopy held in Sumy* 12-14
March 1963/

SOURCE: AN SSSR, Ser.fizicheskaya, v.27, no.9, 1963, 1219-1223

TOPIC TAGS: strength of material , ceramics, corundum, microcrack

ABSTRACT: The formation and development of microcracks on the surface of ceramic
specimens under increasing short-term and stead (long-term) mechanical stresses
was studied. The materials investigated by means of the electron microscope des-
cribed by A.M.Reshetnikov, V.G. Bravinskiy and V.P.Ivanov (Vorposy* radioelektron-
iki, Seriya I, Elektronika, No.2, 82, 1963) were "aluminosilicate" and "alumino-
oxide" high-alumina ceramics. The former consists of thin laminae of glass (25%)
cemented together by crystals of corundum (67%) and celsian (Ba feldspar) (3%);
the latter consists of 85% 10-15 micron corundum crystals with the voids filled
with glass. In the short-term stress experiments the specimens were subjected to
50% the short-term breaking-point load for 300 min. A 0.3 mm^2 area on the polished

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ACCESSION NR: AP3007827

surface was examined at appropriate intervals at a magnification of 2500 X. The quantities determined were the number of cracks and their length. In view of the fact that most of the microcracks occur in the corundum crystals, the data were reduced to the ratios B/A and m/n, where A is the total number of crystals per 0.1 mm^2 area (equal to 3600 for the aluminosilicate ceramic, and 1200 for the aluminooxide ceramic), B is the number of crystals per 0.1 mm^2 area showing cracks, n is the number of cracks evident in only one crystal, and m is the number of cracks extending through two or more crystals. Curves for B/A and m/n versus percent rupture stress (short-term tests) and B/A and m/n versus stressing time (long-term tests) are presented. The experimental data show that the process of breakdown of ceramic materials under stress begins with the appearance of cracks in individual corundum crystals (not between crystals or at the glass-crystal boundaries). With increasing stress or loading time these initial cracks grow and extend across the specimen, leading to eventual rupture. Orig.art.has: 5 figures.

Card 2/3

V T BRAVINSKIY

        "Development of Methods for Control and Investigation of the Mechanical
Parameters of Thin Coatings on the Parts of Electro-vacuum Devices" from Annotations
of Works Completed in 1955 at the State Union Sci. Res. Iust; Min. of Radio Engineer-
ing Ind.

So: B-3,080,964

DZHGLOVA, Nina Grigor'yevna ROZHKOV,A.S.,otv.red.;BRAVKINA,Ye.T.,
     red.
     [Insect pests of vegetable crops in the Lake Baikal region]
     Nasekomye - vrediteli ovoshchnykh kul'tur Fribaikal'ia. Mo-
     skva, Nauka, 1965. 109 p.   (MIRA 18:4)

RYZHIK, V.L.; BRAVO, A.L.; EYGENBROT, I.M.

Automatic control system for parallel operating welding units depending on the loads in buses. Avtom.i prib. no.1:12-18 Ja-Mr '62.   (MIRA 15:3)

1. Trest "Sevzapmontazhavtomatika".
          (Electric welding) (Automatic control)

BRAVO, G.A. (Torino)

Role of hides and leathers in the antique Greek literature.
and art. Bor cipo 10 no.1:25-27 Ja '60.

PETROV, A.A.; BRAVO, Ye.S.; DAVIDOVICH, V.V.; DYATKOVA, O.S.; KUZNETSOVA, G.V.

Investigations in the field of conjugated systems. Part 49. Order of adding alkyl hypohalides to tertiary vinylacetylene alcohols. Zhur.ob. khim. 23 no.7:1120-1124 Jl '53. (MLRA 6:7)

1. Laboratoriya organicheskoy khimii Leningradskogo tekhnologicheskogo instituta imeni Lensoveta.   (Halides) (Vinylacetylene alcohol)

BRAVO-ZHIVOTOVSKIY, D.M.

A method for calculating systems with quasi-surface waves.
Izv. vys. ucheb. zav.; radiofiz. 8 no.4:836-839 '65.
(MIRA 18:9)

1. Nauchno-issledovatel'skiy radiofizicheskiy institut pri
Gor'kovskom universitete.

BRAVO-ZHIVOTOVSKIY, D. M., GAPONOV, A. V., GREKHOVA, M. T., YERGAKOV, V. S., LOPYREV, V. A.
MILLER, M. A., FLYAZIN, V. A., AVERKOV, S. I., and ANIKIN, V. I.

"A Diode Noise Generator in the Three-Centimeter Range," by
S. I. Averkov, V. I. Anikin, D. M. Bravo-Zhivotovskiy, A. V.
Gaponov, M. T. Grekhova, V. S. Yergakov, V. A. Lopyrev, M. A.
Miller, and V. A. Flyazin, Radiotekhnika i Elektronika, Vol 6, No 6,
Jun 56, pp 758-771

The operation of a test noise generator of the 3-centimeter range
which utilizes the shot effect of a concentric diode as a noise source
is described.

Increased effectiveness in the generator diodes was obtained by
switching it to the high-resistance slot line containing one of the arms
of the wave-guide slot T-joint.

Matching in the direction of the generator was accomplished by two
different methods: the absorber was introduced into the wave-guide arm
which is opposite the output, and the absorber was replaced by a short-
circuited loop.

It was observed that matching took place only by the absorption of energy in the generator proper. In both cases, the zone of matching and emission were evaluated in the article as well as the value of the spectral noise power. The spectral noise power was linearly regulated by varying the plate current.

While operating from 450--600 kT_0, the current attained a value of 15 ma. (T_0 equals 300 degrees K and k = Boltzmann's constant.)

Sum 1258

06339
SOV/141-2-1-11/19

AUTHORS: Bravo-Zhivotovskiy, D.M., Yeremin, B.G., Zagryadskiy, Ye.V.,
              Miller, M.A. and Mochenev, S.B.

TITLE: Experimental Study of the Motion of Electron Beams in
              Weakly Non-uniform High-frequency Fields

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Radiofizika,
              1959, Vol 2, Nr 1, pp 94 - 100 (USSR)

ABSTRACT: It has been shown in previous papers (A.V. Gaponov,
              M.A. Miller - Refs 1-3) that non-relativistic motion
              of a changed particle in a weakly non-uniform field
              can be represented as the superposition of an
              oscillation with the frequency of the external field
              $r^{(1)}(t)$ and a motion averaged over the period of that
              field, $r^{(0)}(t)$. These components obey Eqs (2) and
              (3) and since the r.h.s. of Eq (2) contains the electric
              potential vector the averaged motion of a particle is
              completely defined by the initial conditions and the
              form of the high-frequency potential $\phi(r)$. The
              equations are best proved by studying the passage of an
              electron beam through a high-frequency potential barrier.

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Experimental Study of the Motion of Electron Beams in Weakly Non-uniform High-frequency Fields

The experiments demonstrate deflection of charged particles along the slope of the barrier; reflection from the barrier; high-frequency focusing. It should be possible to study the first effect in an ordinary multi-cavity magnetron working in the π-mode. Such measurements are hindered by a discharge which arises even in a cold magnetron when a high enough power is introduced. In a cold magnetron without magnetic field, the electrons appearing as a result of ionisation must slide down the slope of the potential barrier to the cathode and faster ions will arise there, the height of whose potential barrier is, from Eq (2),

$(m_i/m_e)^2$ times less. Thus, a high-frequency impulse, introduced into a cold magnetron, will produce in the anode-cathode circuit a current pulse of reverse sign with an extended near flank. Measurements have been made by applying a positive voltage to the anode to compensate for the discharge current, with a typical result as in

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SOV/141-2-1-11/19

Experimental Study of the Motion of Electron Beams in Weakly Non-uniform High-frequency Fields

Figure 1. This demonstration is only qualitative since the curve of Figure 1 should be linear. Reasons suggested for the non-linearity are: tunnel-effect, distortion of potential barrier, interaction between electrodes and particle-source in the interaction space. The reflection of electrons from a potential barrier has been studied using the special arrangement of Figure 2 in which a beam of electrons traverses the centre of a waveguide resonator. The resonator is excited with 1 μsec pulses of power at 60 Gc/s. The height of the potential barrier is measured by the negative compensating pulse applied to the cathode of the electron gun. The graphs of Figure 3 are experimental results which agree with the theoretical expectations of Eqs (5) and (6) to better than the experimental error of 7%. The possibility of focusing a rectilinear electron beam has been demonstrated using a form of travelling-wave tube with a helical delay line of mean diameter 5.9 mm, wire diameter 0.3 mm, pitch 0.63 mm. The wavelength was 10 cm. The focusing of the

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Experimental Study of the Motion of Electron Beams in Weakly non-uniform High-frequency Fields

electron beam was indicated by the appearance of collector current with high-frequency power sent along the helix. The transverse velocity within the beam could be changed by applying a constant transverse magnetic field over a short length of the flight path. The relation between the limiting transverse velocity of electrons and the power necessary to confine them within the limits of the helix is Eq (8) and the experimental result of Figure 4 shows excellent agreement. V.A. Flyagin and V.A. Lopyrev assisted in preparation of the apparatus. There are 4 figures and 7 references, 6 of which are Soviet and 1 English.

ASSOCIATION: Issledovatel'skiy radiofizicheskiy institut pri Gor'kovskom universitete (Radiophysics Research Institute of Gor'kiy University)

SUBMITTED: October 31, 1958

Card 4/4

68558

9.9000

S/141/59/002/05/022/026
E041/E321

AUTHOR: Bravo-Zhivotovskiy, D.M.

TITLE: Circular-polarized Surface Waves in Corrugated Systems

ABSTRACT: It is known (Refs 1-3) that surface waves propagated along
       a surface with an anisotropic impedance can, in the general
       case, be represented by the superposition of TE- and TM-type
       waves. In the corrugated system of Figure 1 the components
       of the electric field can be described by Eq (1). Let the
       direction of propagation make an angle ϑ with the corru-
       gations where $\tan \vartheta = \alpha_1/\alpha_2$ and α_1 and α_2 are
       dimensionless coefficients in Eq (1). The transverse
       component of electric field is Eq (4). Circular polari-
       zation will occur when the E_z and E_ζ components in
       this equation are equal. This requires fulfilment of
       conditions of Eqs (6) and (7). These are mutually opposed
       unless the spaces between the teeth of the corrugation are
       filled with dielectric material. For a fixed value of
       permittivity the height of the teeth must satisfy Eq (8).
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S/141/59/002/05/022/026
E041/E321
Circular-polarized Surface Waves in Corrugated Systems

M.A. Miller and V.I. Talanov are thanked for their comments.

There are 1 figure and 3 Soviet references.

ASSOCIATION: Nauchno-issledovatel'skiy radiofizicheskiy institut pri Gor'kovskom universitete (Radiophysics Scientific Research Institute at Gor'kiy University)

SUBMITTED: July 13, 1959

Card 2/2

1. BRAVSKIY, G. A.; OMEL'YANOVICH, V. I. Engs.

2. USSR (600)

4. Mine Ventilation

7, Boring vertical ventilation mine shafts. Ugol' 27 no. 10, 1952.

.9. Monthly List of Russian Accessions, Library of Congress, January, 1953. Unclassified.

BRAVYY, A.S.

Numbering treated poles. Avtom., telem. i sviaz' 2 no.1:25 Ja '58.
(MIRA 11:1)
1. Starshiy elektromekhanik Artemovskoy distantsii signalizatsii i
svyazi Donetskoy dorogi.
(Railroads—Equipment and supplies)

KOMZIKOV, L., konstruktor; BRAVYY, G., konstruktor

The BP-62 sidecar. Za rul. 19 no.8:17 Ag '61.   (MIRA 14:9)
(Motorcycles)

B R A V Y Y,

USSR/Cultivated Plants - Technical, Oil and Sugar Crops.   M-4

Abs Jour   : Ref Zhur - Biol., No 3, 1958, 10873

Author   : Bravyy, Z.A.
Inst   :
Title   : New Varieties of Fine-Fiber Cotton.

Orig Pub   : Tekstil'naya prom-st', 1956, No 11, 9-10

Abstract   : The fine-fiber cotton varieties fall into three categories
             on the basis of their technological and spinning proper-
             ties; 2 & 3 and 504-V belong in the first category,
             5476-I in the second, and 10964, 123-F, 2365-V, and
             5904-I in the third. A short evaluation of new, fine-
             fiber cotton varieties (8763-I, 8788-I, 8813-I, 8596-I,
             1145, S-6002, 2525, Az-29) is given with a regional break-
             down, and they are compared with the industrial varieties
             presently in use. Data are given on the quality of the
             thread and fiber prepared from 8763-I, 8788-I, 8813-I, 2 &
             3, and 5476-I. The conclusion reached is that selection

Card 1/2

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USSR/Cultivated Plants - Technical, Oil and Sugar Crops.   M-4

Abs Jour   : Ref Zhur - Biol., No 3, 1958, 10873

              work with the fine-fiber varieties must be intensified,
              8763-I, 8788-I, and 8813-I must be planted more extensi-
              vely in the Turkmen, Tadzhik, and Uzbek SSR, and 2966-I
              and MOS-620 must be used more widely in the Azerbaydzhan
              SSR.

Card 2/2

BRAVYY, Z.A., inzhener.

New varieties of medium fiber cotton plant. Tekst. prom. 17 no.3:
19-21 Mr '57.   (MLRA 10:4)
                    (Cotton--Varieties)

VAYNSHTEYN, Grigoriy Abramovich, inzh.; BRAVYY, Zelik Abelovich, inzh.;
SOKOLOVA, V.Ye., red.; SMIRNOV, I.I., retsenzent; KOGAN, V.V.,
tekhn.red.

[Manual on cotton manufacture] Spravochnik po vatnomu proiz-
vodstvu. Moskva, Gos. nauchno-tekhn. izd-vo lit-ry po legkoi
promyshl., 1958.   263 p.   (MIRA 11:12)
                    (Cotton manufacture)

BRAVYY, Z.A., inzh.

For further improvement in the quality of domestic cotton. Tekst.
prom. 18 no. 7:12-14 Jl '58.   (MIRA 11:7)
(Cotton)

RODICHEV, S.D.; MERKIN,.I.B.; MILOKHOV, N.I.; POPELLO, A.P.; SOLOV'YEV,
N.D.; SHEMSHURIN, N.A.; SORKIN, N.B., retsenzent; SMIRNOV,.I.I.,
retsenzent; ANDREYEV, Yu.I., retsenzent; BRAVYY, Z.A., retsenzent;
SOKOLOVA, V.Ye., red.; MEDVEDEV, L.Ya., tekhn.red.

[Handbook on the primary processing of cotton] Spravochnik po
pervichnoi obrabotke khlopka. Moskva, Gos.nauchno-tekhn.izd-vo
lit-ry po legkoi promyshl., 1959. 687 p.   (MIRA 13:4)
        (Cotton gins and ginning)

BRAVYY, Z.A., ispolnyayushchiy obyazannosti starshego nauchnogo sotrudnika

     SMIRNOV, I.I., starshiy nauchnyy sotrudnik

     Revision of the price list for cotton fibers. Tekst.prom. 20
     no.2:83-86 F '60.   (MIRA 13:6)
                       (Cotton--Prices)

BRAVYY, Z. A., inzh.

Simplified determination of the breaking length of cotton yarn based on fiber parameters. Tekst.prom. 20 no.9:20-23 S '60.

(Cotton yarn)

(MIRA 13:10)

BRAVYY, Z.A.; NILOVA, V.I., red.; TIMOFEYEVA, Ye.A., red.;
BRATISHKO, L.V., tekhn. red.

[Calculation method for determining fiber parameters]
Raschetnyi metod opredeleniia parametrov volokna. Mo-
skva, 1963. 27 p.
(MIRA 17:3)

1. Moscow. TSentral'nyy institut nauchno-tekhnicheskoy
informatsii legkoy promyshlennosti.

BRAVYY, Z.A.; KIRILINA, V.Z., st. nauchn. sotr., red.; NOSKOV,
R.F., red.; BRATISHKO, L.V., tekhn. red.

[Rapid method for determining the breaking length of cot-
ton yarn] Ekspressnyi metod opredeleniia razryvnoi dliny
khlopchato-bumazhnoi priazhi. Moskva, 1962. 63 p.
(MIRA 17:3)
1. Moscow. TSentral'nyy institut nauchno-tekhnicheskoy in-
formatsii legkoy promyshlennosti.

BRAXATORIS, Rudolf, Dr.

The poliomyelitis epidemic in Eastern Szabolcs in 1956. Orv. hetil.
98 no.37:1009-1014 15 Sept 57.

1. A Mateszalki Jarasi Korhaz (igazgato: Soos Zoltan dr.) Gyermekosztal-
yanak (foorvos: Braxatoris Rudolf dr.) kozlemenye.
(POLIOMYELITIS, epidemiol.
in Hungary, epidemic in Szabolcs county in 1956 (Hun))

BRAXATORIS, Rudolf, dr.; GERLEI, Ferenc, dr.; KRASZHAY, Judit, dr.

Congenital hemangiomatosis (haemangioma multiplex). Gyermekgyogyasat
11 no.1:28-32 Ja '60.

1. A Mateszalkai Jarasi Tanacs Korhaza (igazgato: Csiszar
Gusztav dr.) gyermekosztalyanak (foorvos: Braxatoris Rudolf dr.)
es a Szabolcs-Szatmar Megyei Tanacs Korhaza (igazgato: Banko
Laszlo dr.) korbonctani-korszovettani osztalyanak (foorvos:
Gerlei Ferenc dr. egyetemi magantanar) kozlemenye.
                (HEMANGIOMA in inf & child)

BRAY, I.

New oil-reclaiming plant. Nefianik 6 no.2:24 F '61.

(MIRA 14:10)

(Oil reclamation--Equipment and supplies)

BRAY, I., inzh.; SHASHKIN, P., inzh.

Regeneration of used oils. Avt.transp. 41 no.4:29-32 Ap '63.
(MIRA 16:5)

1. Vsesoyuznaya kontora Vsesoyuznogo tresta po regeneratsii
otrabotannykh neftyanykh masel Glavneftesbyta Ministerstva
neftyanoy promyshlennosti SSSR.
(Gas and oil engines--Lubrication)

BRAY, I.V., inzh.

Stabilization of reclaimed transformer oils by adsorbents, activated
by gaseous ammonia. Energetik 10 no.2:26-28 F '62.

(MIRA 15:2)

(Insulating oils)

BRAY, I.V., inzh.

Plant practices in the reclamation of vacuum oils. Neftianik
5 no.9:13-15 S '60.   (MIRA 13:9)

1. Zavod Regotmas.
                    (Oil reclamation)

BRAY, I.V., inzh.; MASLENKOVSKIY, L.G., inzh.

Reclamation of transformer oils by means of adsorbents activated
with gaseous ammonia. Energetik 9 no.6:21-24 Je '61.
                                                    (MIRA 16:7)
          (Insulating oils)   (Oil reclamation)

SHASHKIN, P.I., inzh.; BRAY, I.V., inzh.; KISELEV, A.A., inzh.; MASLENKOVSKIY, L.G., inzh.

Unit for regenerating the wash liquid. Vest.mash. 41 no.7:75-76 Jl '61. (MIRA 14:6)
(Cleaning compounds)

BELYAVSKIY, I.Yu., inzh.; BRAY, I.V., inzh.; KUDINOV, Yu.A., inzh.
   SAVEL'YEVA, O.V., inzh.

   New lining and filtering materials. Zhel.-dor.transp 43 no.9:61-
   63 S '61.   (MIRA 14:8)
         (Railroads—Equipment and supplies)

BARKAN, A.I.; BRAY, I.V.; ZILLER, G.K.

Petroleum oil reclamation with the use of surface-active agents.
Khim.i tekh.topl.i masel 7 no.4:33-38 Ap '62.   (MIRA 15:4)

1. TSentral'naya nauchno-issledovatel'skaya laboratoriya Vsesoyuznoy
kontory "Regotmas".
        (Oil reclamation)   (Surface-active agents)

BRAY, I. V., inzh.; MASLENKOVSKIY, L. G., inzh.; SADOV, D. A., inzh.;
ROZENFEL'D, V. F., inzh.

Use of silica gell with activated gaseous ammonia for regenerating
the insulating oil of operating transformers. Energetik 10 no.8:
23-26 Ag '62.   (MIRA 15:10)

(Insulating oils)   (Electric transformers)

BRAY, I.V.; KUDINOV, Yu.A.; BELYAVSKIY, I.Yu.; GRIGOR'YEV, M.A.,
kand. tekhn. nauk, retsenzent; GALANOVA, M.S., red.izd-
va; DEMKINA, N.F., tekhn. red.

[Filters for fine purification of diesel fuel] Fil'try ton-
koi ochistki dizel'nogo topliva. Moskva, Mashgiz, 1963.
126 p.   (MIRA 16:6)
    (Diesel fuels)   (Filters and filtration)

BELY, I.V., inzh.

Technological processes of the regeneration of compressor oils.
Vest.mashinostr. 44 no. 2:76-78 F '64.   (MIRA 17:7)

SHASHKIN, P.I.; BRAY, I.V.; KISELEV, A.A.

RM-100 oil reclaiming unit. Nefteper. i neftekhim. no.8:22-27
'63.   (MIRA 17:8)

1. Vsesoyuznaya kontora po regeneratsii otrabotannykh neftyanykh
masel.

SHASHKIN, P.; BRAY, I.

Reclamation of used oils. Avt. transp. 43 no.2:15-17 F '65.
(MIRA 18:6)
1. Vsesoyuznaya kontora po regeneratsii otrabotannykh neftyanykh
masel.

OLOVYANNIKOV, Ye.Ye., inzhener; BRAYCHENKO, V.I., inzhener.

  Operational experience of the recovery section at the Bagleyskiy
  Byproduct Coking Plant. Koks i khim. no.3:52 '56. (MLRA 9:8)

  1. Bagleyskiy koksokhimicheskiy zavod.
    (Coke industry--Equipment and supplies)

BUYNOV, A.F., inzhener; BRAYCHEV, V.P., inzhener; PARKHILOVSKIY, I.G., inzhener; SVESHNIKOV, D.A., Inzhener.

Determining the endurance limits of spring steel in the presence of contact stresses. Vest.mash. 35 no.12:51-55 '55. (MLRA 9:5)

1. Gor'kovskiy avtomobil'nyy zavod imeni Molotova.
                    (Springs (Mechanism))

MALINOVSKIY, M.S.; SOLOMKO, Z.F.; BRAYCHENKO, V.T.

Sulfonanilides Part 8: Ethyl esters of N-aryl sulfonyl-N-phenylglycines.
Zhur.ob.khim. 33 no.7:2410-2412 Jl '63.   (MIRA 16:8)

1. Dnepropetrovskiy gosudarstvennyy universitet.
                    (Sulfonanilides) (Acetic acid)

MALINOVSKIY, M.S.; SOLOMKO, Z.F.; BRAYCHENKO, V.T.

Sulfonanilides. Part 13: Methyl ethers of N-aryl sulfonyl
N-phenylglycine. Ukr. khim. zhur. 29 no.10:1062-1064 '63.
(MIRA 17:1)

1. Dnepropetrovskiy gosudarstvennyy universitet.

BUYNOV, A.F.; BRAYCHEV, V.L.

Effect of center band tightening on the fatigue strength of springs.
Avt.i trakt.prom. no.6:17-18 Je '57.   (MLRA 10:8)

1.Gor'kovskiy avtozavod imeni Molotova.
                    (Automobiles--Springs)

TENYAKOV, V.I.; BRAYCHEV, V.P.

Work of the laboratory for mechanical tests of the Gorkyi Automobile
Plant. Avt.prom. no.3:43-44 Mr '61.   (MIRA 14:3)

1. Gor'kovskiy avtozavod.
      (Gorkyi—Automobile industry)

BRAYCHEVS'KA, A.T.

Ancient pottery furnaces in eastern Europe. Mar. z ist. tekh.
no.3:143-150 '56.   (MLRA 10:6)
(Ukraine--Pottery, Ancient)

BRAYCHEVSKAYA, Ye.Yu.

Investigating photographic intensifiers by a study of detail reproduction. Zhur.nauch.i prikl.fot.i kin. 5 no.1:7-9 Ja-F '60.   (MIRA 13:5)

1. Nauchno-issledovatel'skiy institut sudebnoy ekspertizy.
   (Photography--Negatives) (Photographic chemistry)

BRAYCHEVS'KIY, M.Yu.

Ancient city of Pastryskoye. Visnyk AN URSR 24 no.10:66-73
O '52.   (MLRA 9:9)

(Pastyrskoye (Kirovograd Province))

BRAYCHEVSKIY, M.Yu.

The "Antaes" as incorrectly ascribed to Mauricius.   Sov.etn. no.2:21-36
'53.   (MLRA 6:6)
                                                                   (Antaes)

BRAYCHEVS'KIY, M.Yu.

Outstanding Ukrainian archaelogist; 40th anniversary of the death
of V.V.Khvoika. Visnyk AN URSR 25 no.11:59-61 N '54.   (MIRA 8:2)
     (Khvoika, V.V., d.1914)

BRAYCHEVS'KIY, M.Yu.

History of ironwork in eastern Europe at the end of the First
millenium B.C. Nar.z ist.tekh. no.2:107-121 '55. (MLRA 9:4)
        (Transcarpathia--Iron age)

BRAYCHEVS'KIY, M.Yu.

New achievements in Ukrainian archaeology. Visnyk AN URSR
27 no.1:77-80 Ja '56.   (MIRA 9:6)
          (Ukraine--Archeology)

BRAYCHEVSKIY, M. Yu. [Braichevs'kyi, M. IU]

When the ancient eastern Slavs began to make their axes with eyes.
Nar. z ist. tekh. no.6:144-150 '60.   (MIRA 13:11)
        (Axes)   (Stone implements)

BRAYCHEVSKIY, M.Yu.; PSHENICHNAYA, L.E.; SKOROKHOD'KO, E.F.

Information retrieval in the field of archaeological literature.
NTI no.8:13-16 '63.   (MIRA 16:10)

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A005/A001

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AUTHORS: Ivanovskiy, F. P., Brayde, G. Ye., Semenova, T. A., Lyudkovskaya,B.G.

TITLE: An Investigation of a Carbon Monoxide Conversion Catalyst on the Base of the Oxides of Zinc, Chromium, and Copper

PERIODICAL: Probl. kinetiki i kataliza, 1960, Vol. 10, pp. 90-94

TEXT: The effect of the chemical composition on the catalytic activity and the properties of a low temperature Zn - Cr - Cu catalyst for CO conversion was investigated. It turned out that the catalytic activity increases with increasing Cu content, reaches a maximum at the catalyst composition $ZnO \cdot Cr_2O_3 \cdot 0.5CuO$, and then decreases. On the contrary, the activation energy decreases with increasing Cu content, reaches a minimum at the content of 0.5 molecules Cu in the catalyst, and then increases. Therefore, the minimum value of the activation energy corresponds to the maximum activity. It is assumed that the high catalyst activity is connected with the presence of the zinc-chromium spinel in it, which is formed at a lower temperature in the presence of Cu, which activates the catalyst in considerable degree.   Summary of the authors

Translator's note: This is the full translation of the original Russian abstract.

Card 1/1

VASHCHENKO, M.A.; ZHARNITSKIY, I.I.; BRAYER, Ye.M.

Temporal piezotonooscillography. Zhur. nevr. i psikh. 65 no.5:657-661
'65.
(MIRA 18:5)

1. Institut infektsionnykh bolezney Ministerstva zdravookhraneniya
UkrSSR, Kiyev.

B RAYER YU.

YEVSTIGNEYEVA, R.P.; BRAYER, Yu.; PREOBRAZHENSKIY, N.A.

Synthesis of emetamine alkaloid. Dokl. AN SSSR 117 no.2:227-229
N '57. (MIRA 11:3)

1. Predstavleno akademikom I.N. Nazarovym.
(Ipecacuanha)

Y

BRAIKEVITCH, M. V.

The revival of railway transport in Russia. (Russian Economist, Sept.-Oct. 1920, p. 11-27).
A detailed analysis of the condition and operation of Soviet railways, 1917-1920.

DLC: PRR

SO: <u>Soviet Transportation and Communications, A Bibliography, Library</u> of Congress,
     Reference Department, Washington, 1952, Unclassified.

BRAYKO, P.

AID P - 1842

Subject   : USSR/Aeronautics

Card 1/1   Pub. 135 - 3/18

Author   : Brayko, P., Lt. Gen. of Aviation

Title   : Soviet Air Force in World War II

Periodical   : Vest. voz. flota, 4, 15-20, Ap 1955

Abstract   : This is a praise of the Soviet Army and Air Force for
                their part in World War II. In the second part the
                author sharply attacks the USA and her Allies for
                their alleged aggressive post-war policy.

Institution : None

Submitted   : No date

BRAYKO, P.I., general-polkovnik aviatsii

The best of the best were decorated. Av. i kosm. 47 no.5:12-14
My '65.   (MIRA 18:4)

1. Nachal'nik Glavnogo shtaba Voyenno-vozdushnykh sil.

BRAYKO, V.

Mixed-integral process brigades in machinery manufacturing. Sots. trud 7 no.12:113-118 D '62.   (MIRA 16:2)

1. Starshiy inzh. TSentral'noy nauchno-issledovatel'skoy laboratorii truda Upravleniya mashinostroitel'nykh predpriyatiy Donetskogo soveta narodnogo khozyaystva.
                    (Donetsk Province—Machinery industry)

BRAYKO, V.D.

Biology of the shipworm Teredo navalis L. in the Black Sea.
Trudy SBS 10:76-82 '58.   (MIRA 12:9)
            (Black Sea—Shipworms)

BRAYKO, V.D.

      Polyzoa of the Black Sea. Trudy SBS 13:128-154 '60.

                       (MIRA 14:3)

          (Black Sea—Polyzoa)

BRAYKO, V.D.; GOROMOSOVA, S.A.; PITSYK, G.K.; FEDORINA, A.I.

Dynamics of zooplankton in the Black Sea according to observations made during 1956-1958. Trudy Azcherniro no.18:29-49 '60.
(MIRA 14:10)

(Black Sea—Zooplankton)

BRAYKO, V.D.; FEDORINA, A.I.

Zooplankton of the eastern part of the Black Sea. Vop. ekol. 5:
15-17 '62.   (MIRA 16:6)

1. Azovo-Chernomorskiy nauchno-issledovatel'skiy institut morskogo
i rybnogo khozyaystva i okeanografii, Kerch'.
                    (Black Sea—Zooplankton)

BRAYKO, V.D.

Biology of the hibernating eggs of Penilia avirostris Dana. Dokl.
AN SSSR 164 no.5:1187-1189 O '65.   (MIRA 18:10)

1. Azovo-Chernomorskiy nauchno-issledovatel'skiy institut morskogo
rybnogo khozyaystva i okeanografii, Kerch'. Submitted December 11,
1964.

BRAYKO, Ya.P. (Ungeny, Moldavskoy SSR)

At the Ungeny Quarantine Station. Zashch. rast. ot vred. i
bol. 7 no.12:45-46 D '62.   (MIRA 16:7)

(Ungeny—Plant quarantine)

BRAYKOV, S.F., svinar'; FITOVA, L., red.

[19 baby pigs from each brood sow] 19 porosiat ot
kazhdoi svinomatki. Kishinev, Kartia moldoveniaske,
1965. 22 p.   (MIRA 19:1)

BRAYKOVA, P.

Elaboration of a Cleaning Technology for Steel Wires and Other Steel
Parts by Using Sulfuric Acid. Leka Promishlenost (Light Industry), #12:42:Dec. 1955

BRAYKOVA, P.

What Is Indicated by a Survey of the Rationalizers' Work during 1955.
Leka Promishlenost (Light Industry), #12:43:Dec. 1955

BRAYKOVA, P.

BULGARIA/ Analytical Chemistry. Analysis of Inorganic   G-2
Substances.

Abs Jour: Referat. Zhur.-Khimiya, No. 8, 1957, 27185.

Author   : P. Braykova, M. Katsarova.

Title   : Photometric Determination of Iron in Raw Materials
Used in Glass and Ceramic Industries.

Orig Pub: Leka promishlennost, 1956, 5, No. 9, 36 - 38.

Abstract: If the thiocyanide method is used for the deter-
mination of Fe, the results are too low; it is
recommended to use the sulfosalicylic acid method.
The weighed sample of 0.4 to 0.5 g of the analyzed
material is treated with HF and H_2SO_4 while being
heated until SiO_2 and SO_3 vapors are eliminated,
the residue is fused with 1 to 1.5 of $KHSO_4$, the
fuse is dissolved in warm water acidified with
HNO_3 (1 : 50); R_2O_3 is precipitated from the

Card 1/2

BULGARIA/ Analytical Chemistry. Analysis of Inorganic   G-2
Substances.

Abs Jour: Referat. Zhur.-Khimiya, No. 8, 1957, 27185.

produced solution using NH_4OH. The precipitate
is washed with a 3%-ual solution of NH_4NO_3, dis-
solved in 5 ml of HNO_3 (1 : 1) and diluted to
100 ml (if a high exactitude was not required,
the solution of fuse produced by fusion with
$KHSO_4$ may be used for the following determination
of Fe). An aliquot portion of the solution con-
taining o.ol to 1 mg of Fe is mixed with 25 ml of
10%-ual solution of sulfosalicylic acid, with
25%-ual solution of NH OH until the color becomes
yellow, and 5 ml of concentrated NH_4OH, diluted
to 100 ml and photometered with a blue light
filter.

Card 2/2

BULGARIA/Chemical Technology - Chemical Products and Their   H-4
      Application. Corrosion. Protection Against.
      Corrosion.

Abs Jour : Ref Zhur - Khimiya, No 17, 1958, 57827

Author   : Radulova Tsv, Braykova P.
Inst   : -
Title   : The Extraction From Local Raw Materials of Corrosion
      Inhibitors During the Pickling of Steel Obkects.

Orig Pub : Leka Promishlenost, 1957, 6, No 9, 20-24

Abstract : An investigation of the defensive action of a series of
      Bulgarian and imported corrosion inhibitors (CI)
      during the pickling of steel objects in 10% H_2SO_4 in the
      course of 1 hour at 50, 65 and 75° indicated that the
      hydrolysis of gelatin in HCl (acid) does not lead to an
      increase of its inhibitor properties. On the contrary,
      the products of the decomposition of casein, in parti-
      cular of the hydrolysis in HCl (acid), are stronger CI

Card 1/2

- 5 -

BULGARIA/Chemical Technology - Chemical Products and Their   H-4
            Application. Corrosion. Protection Against
            Corrosion.

Abs Jour   :   Ref Zhur - Khimiya, No 17, 1958, 57827

            than gelatin. Albumen can also serve as a good CI.
            Especially effective is waste H_2SO_4 obtained as a
            secondary product during the refining of spindle oil.
            Such acid contains soluble nitrogen and organic com-
            pounds which impart CI properties to the product.
            This acid prevents the diffusion of H_2 in the steel
            during pickling; in addition, the rate of pickling
            does not decrease. The action of waste acid is strength-
            ened by the addition of ~ 0.5% NaCl to it.

Card 2/2

1. BRAYLOV, S. F.: BUTIKOV, L. P.

2. USSR (600)

4. Karakul Sheep

7. Experience in breeding and wintering karakuls where well water is acrid.
   Kar. i zver. 5 No. 5, 1952.

9. Monthly List of Russian Accessions, Library of Congress,   January   1953. Unclassified.

MADIYEVSKAYA, N.N.; BRAYLOVSKIY, A.Ya.

Determination of lipoproteins in blood serum by means of electrophoresis on filter paper. Lab.delo 5 no.2:6-8 Mr-Ap '59.   (MIRA 12:5)

1. Iz biokhimicheskoy laboratorii (zav. N.N.Madiyevskaya) Ukrainskogo nauchno-issledovatel'skogo kozhno-venerologiche-skogo instituta.
                        (LIPOPROTEINS)   (ELECTROPHORESIS)

BRAYLOVSKAYA, A. Ye.

U S S R .

Crystallization of potassium bitartrate in grape juice. A. M. Murzaeva and A. E. Brailovskaya. *Vinodelie i Vinogradarstvo S.S.S.R.* 12, No. 3, 21–3(1952).—Technologically prepd. grape juices contain 6–7 g. (av.) of K bitartrate (I) per l., the amt. ranging into the satd. aq. solns. of I at 20–5°. A grape juice contg. 4.4 g. I/l. was stored at temps. close to the f.p. of the juice (from 2 to −5°) and at temps. below the f.p. (from −7 to −30°); after a period of time the concn. of I in the juice was detd. After 21 days of storage at −5° the concn. of I in the juice decreased to 2.2 g./l. and remained at this level for 180 days. With increased temp. of the storage the degree of the crystn. of I decreased, a max. amt. of I pptd. being at −5°, a min. amt. at 16°, resp. The rate and degree of the crystn. of I at −5° varied with varieties of grapes from which the juice was prepd., the amt. of I pptd. changing from 25 to 64% of the total amt. of I, resp. At temps. −7, −10, −24, and −30° the amt. of I pptd. was independent of the temp. In samples of a grape juice chilled for the time necessary to reach the desired temps. the titratable acidity decreased 26%. On prolonged storage of the samples at the corresponding temps. the acidity decreased to the amt. not higher than 38% of the total I; on successive thawing of the samples only a small amt. of the crystd. I was redissolved (at 7° the increase of the titratable acidity of the juice was only 0.03%).

P. Wierbicki

BRAYLOVSKAYA, A. Ye.

Preparation of vegetable juices. A. M. Murzaeva and A. E. Brailovskaya (All-Union Sci. Research Inst. Canning Ind., Krasnodarsk). *Vsesoyuz. Nauch.-Issledovatel. Inst. Konserv. Prom., Referaty Nauch. Rabot* 1954, No. 2, 3–9.—Analytical results are presented for juices prepd. from the 1954 vegetable crop, like the values for total sugars, invert sugar, pH, sp. gr., pectin, acidity, and also carotene. Carrot juices were analyzed, both natural ones and those prepd. with 15 or 25% apple juice; beet juices, natural ones and those mixed with cherry, apple, or grape juices, also beet juices with 0.3% citric acid addn.; clarified and unclarified cabbage juices. ———Werner Jacobson